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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,180	04/11/2001	Taku Ishizawa	Q64072	8824

7590 01/23/2004

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EXAMINER

VO, ANH T N

ART UNIT PAPER NUMBER

2861

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,180

Applicant(s)

ISHIZAWA ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

AU

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-13, 16-25 and 27-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13, 16-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 24.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement is made of the receipt of Preliminary Amendment filed 09 December 2003.

Continued Prosecution Application

The request filed on December 9, 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/832,180 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-13, 16-25, and 27-35 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Barinaga (US Pat. 6,030,074) in view of Harada (JP Pat. 07052399A), Yamazaki et al. (JP Pat. 59204566A) and Mochizuki et al. (US Pat. 5,666,146).

Barinaga discloses in Figure 1 an ink jet printer comprising:

- an ink pack (13) which is filled with ink (16);

- a case (10) housing the ink pack (13) and constituting an outer shell of the cartridge;
- the case (10) is formed hermetically, and air pressure (76) can be applied from a recording apparatus to an interior of the case (10) to pressurize the ink pack (13) when the ink cartridge (11) is loaded to the recording apparatus;
- an ink flow passage (28, 31, 34) of the ink pack (13); and
- wherein the ink cartridge (11) is loaded to the recording apparatus so that surfaces of the ink pack (13) are oriented in a substantially vertical state.

However, Barinaga does not disclose the contact prevention member that is formed by a single rod member bent into a substantially rectangular shape, and arranged the rod along four sides of the flattened ink pack; the ink pack which is formed into a flattened bag shape corresponding to a geometric shape from flexible material; a contact prevention member which is provided within the ink pack for preventing close contact between interior surfaces of the ink pack, caused due to a reduction of ink in the ink pack, thereby ensuring an ink flow passage; wherein the contact prevention member is attached to the interior surface of ink pack and is disposed at a location that is separated from an outer edge of the ink pack corresponding to the geometric shape; wherein the contact prevention member is entirely located within an inner space of the ink pack; wherein the contact prevention member is discrete from and does not form a portion of an outer surface of the ink pack; wherein the contact prevention member is formed from genuine material; the ink flow passage bulging outwardly of the ink pack is formed on at least one of interior surfaces of flexible material; the ink flow passage is formed by press-forming flexible material constituting the ink pack; and the ink flow passage is disposed at a location that is separated from an outer edge of the ink pack.

Nevertheless, Harada discloses in Figure 1 an ink tank comprising an ink pack (88) having the contact prevention member (89) which is provided within the ink pack (88) and which is attached to an inner surface of the ink pack and is formed by a single rod member.

Furthermore, Yamazaki et al. disclose in Figures 2-4 an ink bag of ink cartridge using in an ink jet printer comprising:

- an ink pack (1) which is formed into a flattened bag shape corresponding to a geometric shape from flexible material (Figure 2);
- a contact prevention member (an element 3 can be attached to the inner surface of the ink bag 1) which is provided within the ink pack (1) for preventing close contact between interior surfaces of the ink pack (1), caused due to a reduction of ink in the ink pack (1), thereby ensuring an ink flow passage (2) (Figures 3-4, see Abstract and Constitution);
- wherein the contact prevention member (an element 3 can be attached to the inner surface of the ink bag 1) is attached to the interior surface of ink pack (1) and is disposed at a location that is separated from an outer edge of the ink pack (1) corresponding to the geometric shape (Figures 3-4, see constitution);
- wherein the contact prevention member (4) is entirely located within an inner space of the ink pack (1) (Figure 4);
- wherein the contact prevention member is discrete from and does not form a portion of an outer surface of the ink pack (Figure 3, see constitution); and
- wherein the contact prevention member contacts with the other interior surfaces of the ink pack for preventing close contact between interior surfaces of the ink pack (Figures 3-4, see constitution); and
- wherein the contact prevention member (3) is formed from genuine material.

Additionally, Mochizuki et al. disclose in Figure 1 an ink cartridge comprising:

- the ink flow passage (2) bulging outwardly of the ink pack (1) is formed on at least one of interior surfaces of flexible material;
- the ink flow passage (2) is formed by press-forming flexible material constituting the ink pack (1); and
- the ink flow passage (2) is disposed at a location that is separated from an outer edge of the ink pack (1).

Art Unit: 2861

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Yamazaki et al. and Mochizuki et al. in the ink jet printer of Barinaga for the purpose of providing an flow passage of ink and enhancing the use efficiency of ink by preventing the adhesion between two inner surfaces of the ink bag by the rod member.

Barinaga in view of Harada , Yamazaki et al. and Mochizuki et al. disclose the claimed invention except for "the single rod member bent into a substantially rectangular shape, and arranged the rod along four sides of the flattened ink pack". It would have been obvious to one having ordinary skill in the art at the time the invention was made to select changes in the shape of the rod for the purpose of preventing the adhesion between two inner surfaces of the ink bag, since it is a mechanical design expedient for an engineer depending upon a particular environment and the applications in which the ink jet cartridge is to be used. In re Daily, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). See MPEP 2144.04.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (703) 305-8194. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M.to 6:00 P.M.. The fax number of this Group 2861 is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



ANH T.N. VO
PRIMARY EXAMINER

January 14, 2004